

REMARKS

I. INTRODUCTION

Claims 1-29 are pending in the application. Claims 18-29 are withdrawn from consideration on the merits as being directed to a non-elected invention. By this Amendment, claims 1, 3, 7-11, and 17 are amended to correct various formal matters and not for reasons related to patentability. In view of the foregoing amendments and following remarks, the Applicants respectfully submit that the application is in condition for allowance and request a notice stating the same. Reconsideration is respectfully requested.

II. INFORMATION DISCLOSURE STATEMENT

On page 2 of the Office Action dated May 25, 2006, the Examiner states that the Information Disclosure Statements (IDS) filed October 23, 2003, and May 10, 2004, fail to comply with 37 C.F.R. § 1.98(a)(3) because they do not include concise explanations of the relevance of each document listed that is not in the English language. Specifically, the Office Action states that “[i]t is noted that an English translation of the German Search report has not been received by the Office” and that “a mere indication of the type of reference (X, Y, A, etc.) does not substantially provide a concise explanation of the relevance.” Office Action, page 2. The Applicants respectfully disagree and submit that at least the May 10, 2004, IDS submission complies with the requirements of 37 C.F.R. § 1.98 for at least the following two reasons.

First, the IDS submitted May 10, 2004, includes for consideration each and every reference cited in both the German Office Action (August 20, 2003) and the International Search Report (ISR) (February 18, 2004). A copy of the ISR was also submitted. The ISR provides the respective degrees of relevance for each reference (“X”, “Y”, “A”, etc.). Therefore, the fact that an English language translation of the German Office Action was not received by the Office is not dispositive as to whether the requirements of 37 C.F.R. § 1.98 were satisfied, and each of the references cited in the May 10, 2006, IDS should have been considered.

Second, with regard to the Examiner’s statement that “a mere indication of the type of reference (X, Y, A, etc.) does not substantially provide a concise explanation of the relevance,”

the Applicants respectfully disagree and direct the Examiner's attention to M.P.E.P. § 609.04(a)(III) which states the following, in relevant part:

[w]here the information listed is not in the English language, but was cited in a search report or other action by a foreign patent office in a counterpart foreign application, the requirement for a concise explanation of relevance can be satisfied by submitting an English-language version of the search report or action which indicates the degree of relevance found by the foreign office. This may be an explanation of which portion of the reference is particularly relevant, to which claims it applies, *or merely an "X", "Y", or "A" indication on a search report.* (emphasis added).

Therefore, contrary to the position set forth in the Office Action, the "X", "Y", and "A" indications for each foreign reference on the ISR are sufficient to satisfy the statement of relevance requirement of 37 C.F.R. § 1.98(a)(3). The IDS submitted on May 10, 2004, included a copy of the ISR as well as an English translation of form PTO/ISA/210, thus providing an English description of each of the special categories (X, Y, A, etc.) for listed references. Accordingly, the Applicants respectfully submit that at least the May 10, 2006, IDS was in compliance with 37 C.F.R. §§ 1.97, 1.98, and each of the references listed thereon should be considered and listed in the "References Cited" portion of any patent that issues from this Application. In addition, for purposes of making the record complete, an English translation of the German Office Action dated August 20, 2003, is attached hereto. Reconsideration is respectfully requested.

Furthermore, Applicants submit herewith for consideration a third IDS citing International Patent Document WO 94/21441 A1. Also included for purposes of satisfying the requirements of 37 C.F.R. § 1.98 are a copy of the German Office Action and an English translation thereof. Consideration of the cited reference is respectfully requested.

III. CLAIM REJECTIONS UNDER 35 U.S.C. § 112

On pages 2-3 of the Office Action, claims 1-17 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention. The rejections are respectfully traversed and/or rendered moot for at least the following reasons. Reconsideration and withdrawal of the rejection are respectfully requested.

First, by this Amendment the recitation of “mainly tubes” in the preamble of claim 1 is removed from the claim without prejudice or disclaimer, thus rendering the rejection moot.

Second, by this Amendment, claim 7-11 are amended such that the recited temperatures are specifically recited as being in degrees Celsius (°C), thus rendering the rejection moot. Reconsideration and withdrawal of the rejection are respectfully requested.

Third, with regard to the rejection of claims 2-6, the Applicant respectfully disagrees with the rejection. The Office Action states that claims 2-6 are incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. The recitation of “various apparatus structures,” according to the Office, “amounts to mere claiming of a use of a particular structure.” The Applicant respectfully submits, however, that *such structural recitations do, in fact, affect the method in a manipulative sense* in that *the recited structures limit the particular tools/structures that can be used to carry out the steps recited in the process*. For example, the recitation in claim 2 that “heat is provided to the extruder from an external heating/cooling unit” relates to at least the “heating” step recited in claim 1 such that the heat provided to the extruder to control the temperature of the polymer therein is specifically provided by an external heating/cooling unit. Reconsideration and withdrawal of the rejection are respectfully requested.

IV. CLAIM REJECTIONS UNDER 35 U.S.C. § 103

On pages 4-5 of the Office Action, claims 1-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,979,488 to Greenhalgh et al. (“Greenhalgh”) in view of Official Notice taken by the Examiner. The rejection is respectfully traversed.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to

combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *See* M.P.E.P. § 2143. Furthermore, with regard to the taking of Official Notice, it is not appropriate for an examiner “to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known.” M.P.E.P. § 2144.03(A). In this case, the rejections are respectfully traversed for failing to establish a *prima facie* case of obviousness.

Claim 1 recites “a process for producing peroxide crosslinked, extruded polymer parts” including the step of “heating a composition comprising a peroxide crosslinkable polymer, which is characterized by a crystallite melting point and a crosslinking temperature, and wherein the polymer crystallite melting point is different from the polymer crosslinking temperature, in a heated extruder, wherein ***the temperature of the polymer in the extruder is controlled by a heating/cooling unit*** to a value above the crystallite melting point of the polymer but below the crosslinking temperature” (emphasis added). Claim 2 further recites that “heat is provided to the extruder from an external heating/cooling unit,” and claim 3 recites that “a heat exchange to cool the extruder is provided by an interior heating/cooling unit.” According to the disclosure, for example, “[t]he temperature of the polymer in the extruder can be precisely determined and controlled by the induction of heat from the exterior or the extraction of heat from the interior” and “[t]he quality of the finished parts can also be improved in this manner.” ¶ 0012. Furthermore, “[d]ue to the controlled, gentle heating of the polymer in the extruder, a good degree of homogenization of the polymer can be achieved. The loads in the extruder can also be reduced because unintended cross-linking can be avoided.” ¶ 0038.

On page 4 of the Office Action, the Examiner explicitly states that Greenhalgh “does not teach controlling the temperature in an extruder using a heating/cooling unit.” The Applicants agree that Greenhalgh does not teach this feature. Instead, Greenhalgh teaches heating a polymeric material to substantially its curing temperature by mechanical working and mixing in the extruder through a combination of extruder screw rotational speed and longitudinal “valving”

movement. *See* Greenhalgh, column 8, lines 3-14; FIG. 1. The Office Action acknowledges this deficiency (Office Action, page 4) and asserts that internal and/or external temperature control of the polymeric material in the extruder using internal or external heating/cooling means is well known in the extrusion art and, thus, it would have been obvious to one having ordinary skill in the art to modify Greenhalgh accordingly. The Applicant respectfully disagrees and submits that the Office Action fails to establish a *prima facie* case of obviousness for at least two reasons.

First, the Examiner's taking of Official Notice that temperature control of extruders by internal and/or external heating/cooling units is well known is improper. The Examiner has failed to show any evidence in the record to indicate that this is the case. Greenhalgh certainly does not teach a heating/cooling unit for temperature control of the extruder as any heating of the polymer is accomplished through mechanical working thereof. Accordingly, if the rejection is to be maintained, the Examiner must provide documentary evidence in the next Office action that temperature control of extruders by internal or external heating/cooling means is well known. *See* M.P.E.P. § 2144.03(C).

Second, even if temperature control of extruders by internal and/or external heating/cooling units was considered to be well known in the art, the Applicants respectfully submit that there is no motivation to modify the teachings of Greenhalgh because the apparatus taught therein is already arranged to heat the polymeric material through the mechanical working described therein. Modifying Greenhalgh as proposed in the Office Action would, thus, change the principle of operation of Greenhalgh.

In view of the foregoing, the Applicants respectfully request reconsideration and withdrawal of the rejections of at least claims 1-3. Claims 4-17 depend variously from claim 1 and are, therefore, submitted as being allowable over Greenhalgh for at least the same reasons.

With regard to claim 6, it is respectfully submitted that Greenhalgh fails to teach at least induction of heat from the interior of the extrusion die. Furthermore, with specific regard to at least claims 7-9, 13, and 17, the Applicants respectfully submit that neither Greenhalgh nor the Examiner's taking of Official Notice teaches or suggests the recited process-specific

temperatures. Therefore, Greenhalgh, even if modified according to the Examiner's Official Notice, fails to teach or suggest all the claim features. Reconsideration and withdrawal of the rejections are respectfully requested.

V. CONCLUSION

All of the stated objections and grounds of rejection are believed to have been properly traversed or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.


If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is hereby invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Date:

8/25/06

Respectfully submitted,



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Attachment: English Translation of German Office Action (August 20, 2003)